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## TB NAAT RESULT INTERPRETATION GUIDANCE

TB NAAT result must always be interpreted in conjunction with the AFB smear result. Questions concerning appropriate use of TB NAAT and interpretation of results should be directed to the expert TB clinicians at the RISE Clinic 401-793-2427/2433.

NAAT	SMEAR	Interpretation
Positive	Positive	Assume the patient has tuberculosis and begin anti-TB treatment while awaiting culture results.
Positive	Negative	Use clinical judgment whether to begin anti-TB treatment while awaiting culture results. Consider testing an additional specimen using NAAT to confirm the initial NAAT result. The patient can be assumed to have tuberculosis, pending culture results, if two or more specimens are NAAT positive.
Negative	Positive	Use clinical judgment whether to begin anti-TB treatment while awaiting culture results and determine if additional diagnostic testing is needed. A patient can be presumed to have an infection with non-tuberculosis Mycobacteria (NTM) if a second specimen is smear positive and NAAT negative and no inhibitors are detected.
Negative	Negative	Use clinical judgment whether to begin anti-TB treatment while awaiting culture results and additional diagnostic tests. Currently available NAA tests are not sufficiently sensitive to exclude the diagnosis of TB in AFB smear negative patients suspected of having TB.
NAAT inconclusive		Results obtained are near the limit of detection for this assay and were determined to be inconclusive for this specimen. If symptoms or patient history warrant, a repeat sample, preferably first morning sputum, should be submitted for additional testing.
NAAT indeterminate		Inhibitors are present in the specimen. Inhibitors may prevent or reduce amplification and cause a false negative. The NAAT is of no diagnostic help for this specimen. Use clinical judgment whether to begin anti-TB treatment while awaiting culture results and additional diagnostic tests.

**Reference:**

CDC. Updated Guidelines for the Use of Nucleic Acid Amplification Tests in the Diagnosis of Tuberculosis, MMWR 2009; 58(01):7-10

[http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5801a3.htm?s\\_cid=mm5801a3\\_e](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5801a3.htm?s_cid=mm5801a3_e)